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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/933,692 | 08/21/2001 | Nobuaki Ema | 10830-075001 | 6402 |

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FISH & RICHARDSON P.C.
45 ROCKEFELLER PLAZA, SUITE 2800
NEW YORK, NY 10111

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| EXAMINER |
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NGUYEN, SANG H

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| ART UNIT | PAPER NUMBER |
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2877

DATE MAILED: 09/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|------------------------------|--|
| Office Action Summary | Application No. 09/933,692 | Applicant(s) EMA, NOBUAKI | |
| | Examiner sang nguyen | Art Unit 2877 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-7 is/are rejected.
- 7) ☒ Claim(s) 3,8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION***Drawings***

Figure 3 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.121(d)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

Claim 4 is objected to because of the following informalities: In particular,

Regarding claim 4, the "an" in claim 4 line 3 should be changed to – a --.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

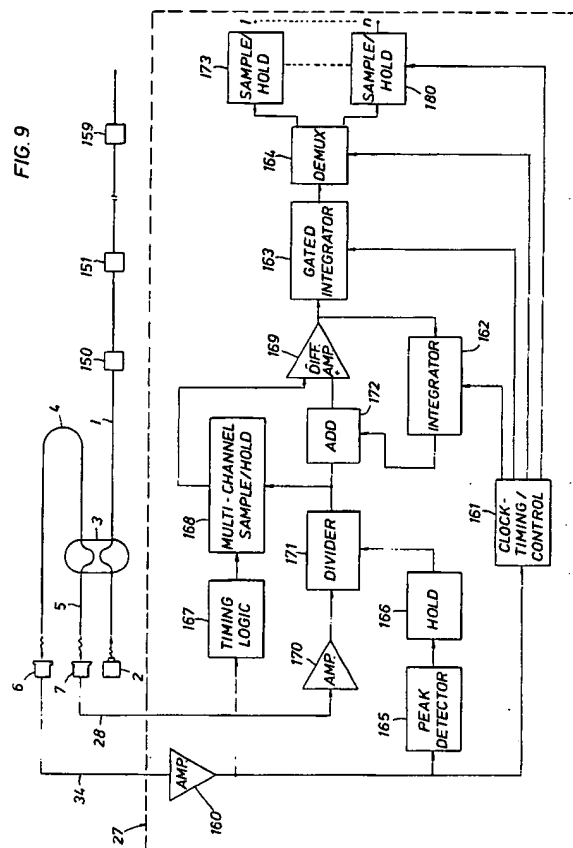
Claims 1-2, 4-5, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Avicola (U.S. Patent No. 4,545,253).

Regarding claim 1; Avicola discloses a variable-wavelength light source apparatus for generating a measurement optical signal from a measurement light source (2 of figure 9) and outputting the optical signal to an optical device (150 of figure 9), comprising:

- a light branching unit considered to be optical fibers (1, 4, 5 of figure 9) for branching the measurement optical signal from the light source (2 of figure 9) to a plurality optical signals (1,4,5 of figure 9) and outputting the plurality of optical signals (1,4,5 of figure 9) to predetermined output terminals of an optical coupler (3 of figure 3);
- a light reflection signal output unit considered to be the optical fibers (1,5 of figure 9) for outputting a light reflection signal input from the optical device (150 of figure 9) to a predetermined output terminal of the optical coupler (3 of figure 9);
- a first light reception device considered to be a monitor photodetector (6 of figure 9) for receiving a light signal to convert into an electrical signal by an amplifier (160 of figures 9-10); and
- a second reception device considered to be a photodetector (7 of figure 9) for receiving a light signal considered to be a returned signal from an optical device (150 of figure 9) into an electrical signal by an amplifier (170 of figures 9-10). See figure 9.

Regarding claim 4; Avicola discloses a variable-wavelength light source apparatus, comprising:

- a light source (2 of figure 9) for emitting a measurement light signal;
- an optical coupler (3 of figure 9) having a plurality of input/output terminals (1, 4, 5 of figure 9);
- a first light reception device considered to be a monitor photodetector (6 of figure 9) for receiving a light signal to convert into an electrical signal by an amplifier (160 of figures 9-10); and
- a second reception device considered to be a photodetector (7 of figure 9) for receiving a light signal considered to be a returned signal from an optical device (150 of figure 9) into an electrical signal by an amplifier (170 of figures 9-10);
- wherein the optical coupler (3 of figure 9) is input the measurement optical signal, and branches the measurement optical signal of the optical coupler (3 of figure 9) into a first branched optical signal (1 of figure 9) to output the first branched optical signal to an optical device (150 of figure 9) and a second branched optical signal (4 of figure 9) to the first reception device (6 of figure 1 and col.6 lines 7-15), and wherein the output the first optical signal to the optical device (150 of figure 9) is input a reflection light signal reflected considered to be a returned signal from the optical device (150 of figure 9) to output the reflection light signal to the second light reception device (7 of figure 9 and col.6 lines 28-38). See figures 1-11.



Regarding claims 2 and 7; Avicola teaches the light branched unit and the light reflection signal output unit are optical couplers (3 of figure 9) having a plurality of output terminals (figure 9) and the first reception device (6 of figure 9) and the second light reception device (7 of figure 9), and the optical device (150 of figure 9) are connected to the plurality of output terminals at the same time.

Regarding claim 5; Avicola teaches at figures 1 and 9 about the plurality of input/output terminals are four input/output terminals.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Avicola (U.S. Patent No. 4,545,253) in view of Prior Art of Present Invention (figure 3).

Regarding claim 6; Avicola discloses all of features of claimed invention except for the light source varies a wavelength of the measurement light signal. However, Prior Art of Present Invention teaches about the light source (101 of figure 1) varies a wavelength of the measurement light signal (page 1 and figure 3). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify a variable-wavelength light source apparatus of Avicola with the light source varies a wavelength of the measurement light signal as taught by Prior Art of Present Invention for the purpose of outputting test signals to test an optical part in measurement or adjustment.

Allowable Subject Matter

Claims 3 and 8-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record, taken alone or in combination, fails discloses or render obvious a variable-wavelength light source apparatus comprising all the

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specific elements with the specific combination including of the optical device is one of a measured optical part and a wavelength calibration gas cell connected to a total reflection termination and a wavelength of the measurement optical signal output from the measurement light source is calibrated using the wavelength calibration gas cell connected to the total reflection termination in set forth limitation of claims 3 and 8.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Peale et al (6687008) discloses wavelength based parallel multi-phaseshift interferometer; Sakairi et al (6614511) discloses light wavelength dispersion measuring apparatus and method; Davidson et al (6559946) discloses method and apparatus to minimize effects of ASE in optical measurement; Imamura et al (6493074) discloses method and apparatus for measurement an optical transfer characteristic; Nyman et al (6061124) discloses apparatus and method for generation of optical signals; Tachikawa et al (5844235) discloses optical frequency domain reflectometer for use as an optical fiber testing device; or Heffner (5227623) discloses method and apparatus for measuring polarization mode dispersion in optical devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sang Nguyen whose telephone number is (571) 272-2425. The examiner can normally be reached on 9:30 am to 7:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory J. Toatley, Jr. can be reached on (571) 272-2800

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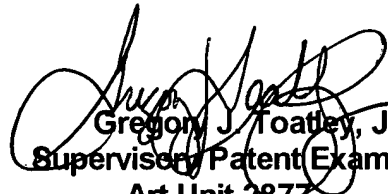
ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SN

Nguyen/SN

August 25, 2004


Gregory J. Toatley, JR.
Supervisory Patent Examiner
Art Unit 2877
Technology Center 2800